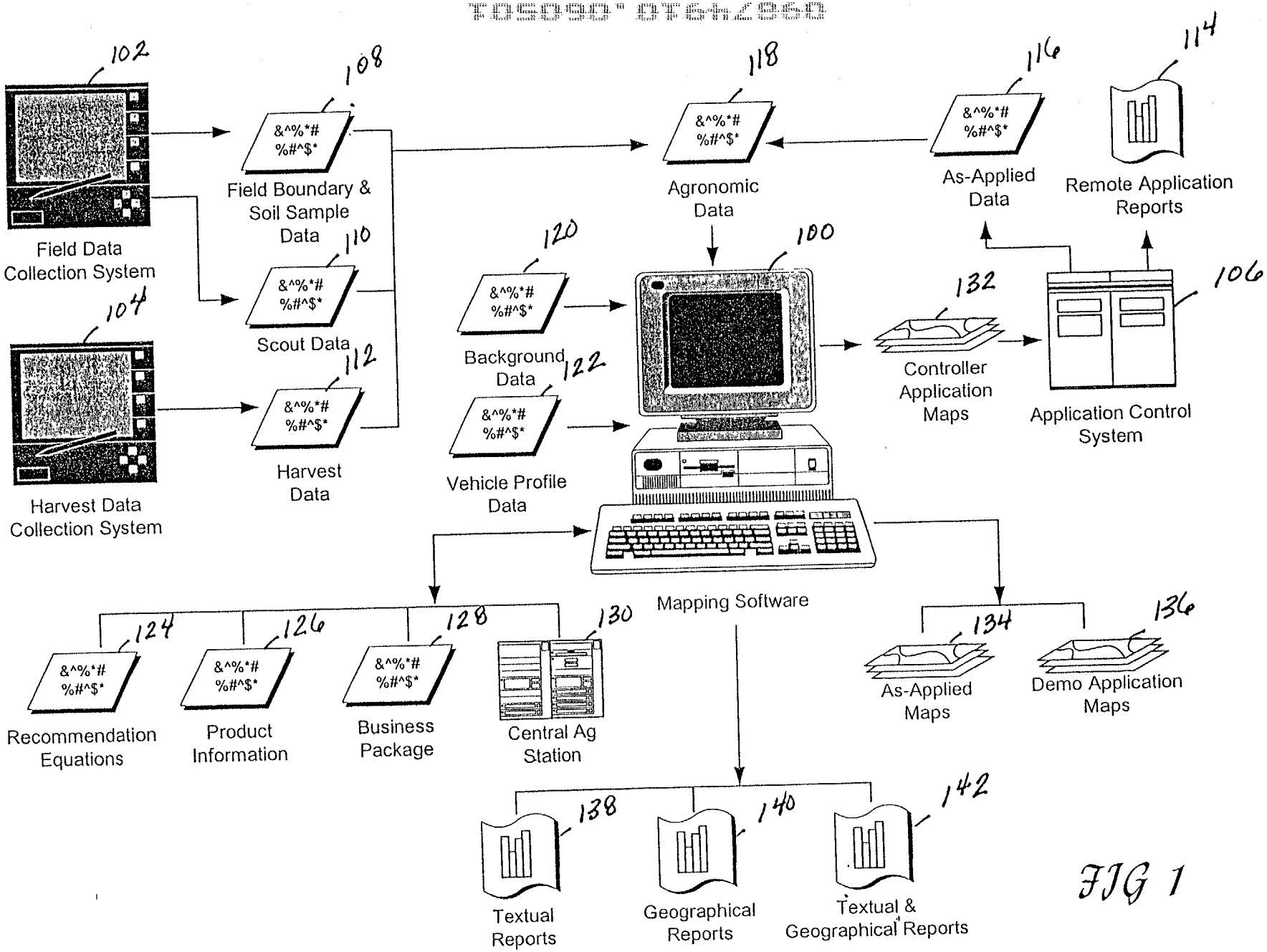

102
Field Data Collection System
108
&^%*#
%#^$*
Field Boundary & Soil Sample Data
110
Scout Data
104
Harvest Data Collection System
112
Harvest Data
118
Agronomic Data
116
As-Applied Data
114
Remote Application Reports
120
Background Data
122
Vehicle Profile Data
100
132
Controller Application Maps
106
Application Control System
Mapping Software
124
Recommendation Equations
126
Product Information
128
Business Package
130
Central Ag Station
134
As-Applied Maps
136
Demo Application Maps
138
Textual Reports
140
Geographical Reports
142
Textual & Geographical Reports

FIG 1

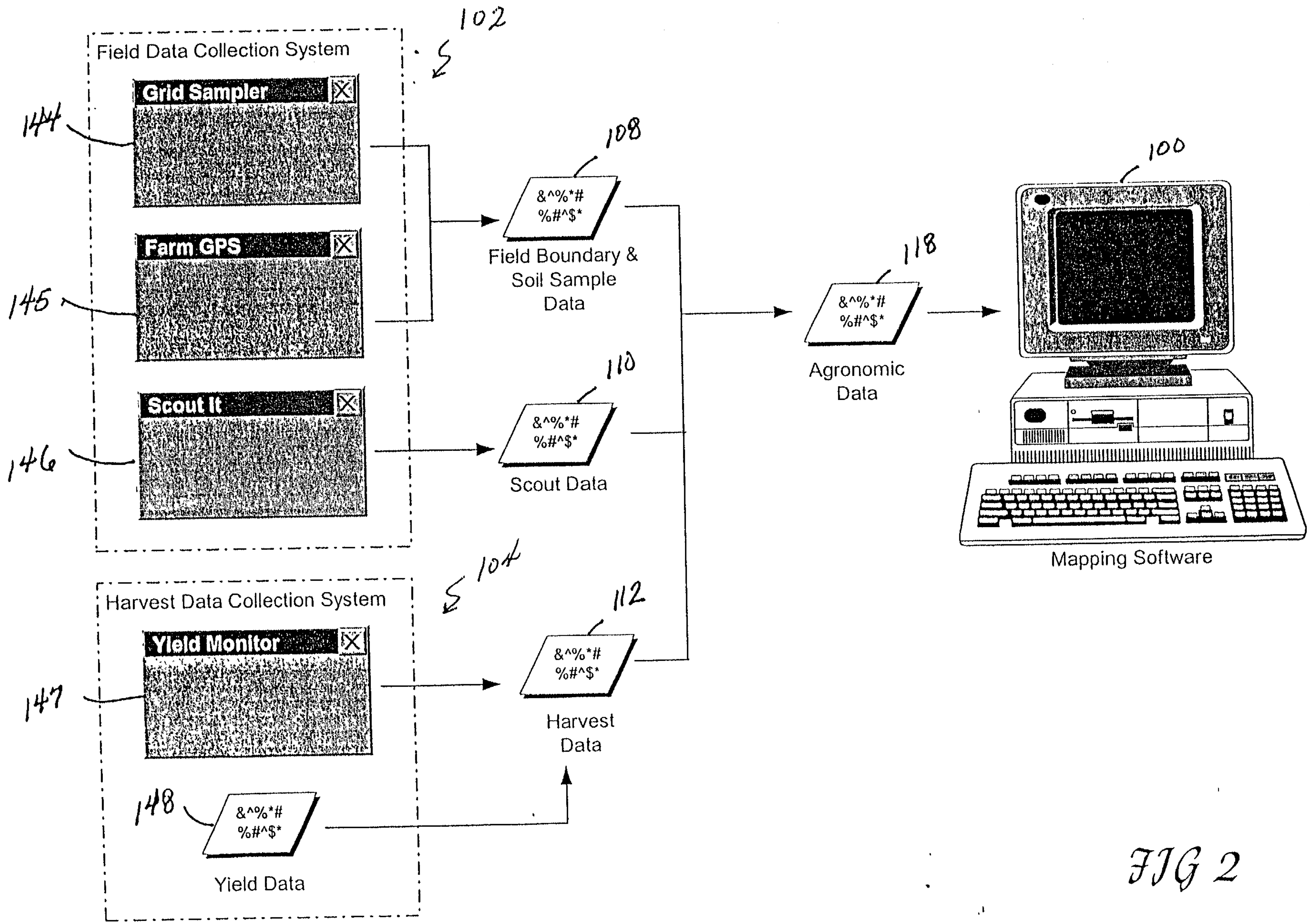

102
Field Data Collection System
Grid Sampler
Farm GPS
Scout It
144
145
146
Harvest Data Collection System
104
Yield Monitor
147
148
&^%*#
%#^$*
Yield Data
108
&^%*#
%#^$*
Field Boundary &
Soil Sample
Data
110
&^%*#
%#^$*
Scout Data
112
&^%*#
%#^$*
Harvest
Data
118
&^%*#
%#^$*
Agronomic
Data
100
Mapping Software

FIG 2

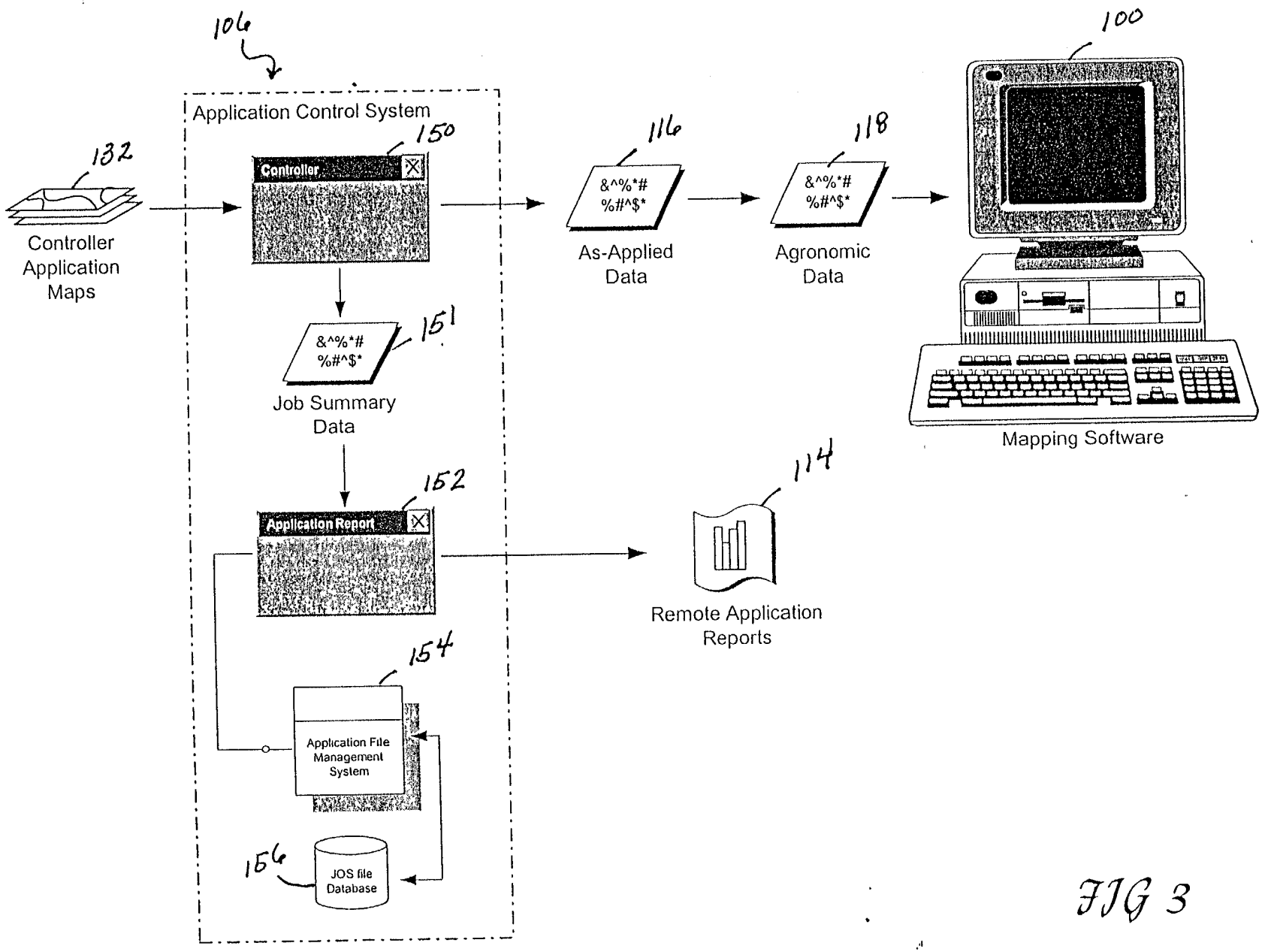

106
Application Control System
132
Controller Application Maps
150
Controller
151
&^%*#
%#^$*
Job Summary Data
152
Application Report
154
Application File Management System
156
JOS file Database
116
&^%*#
%#^$*
As-Applied Data
118
&^%*#
%#^$*
Agronomic Data
100
Mapping Software
114
Remote Application Reports

FIG 3

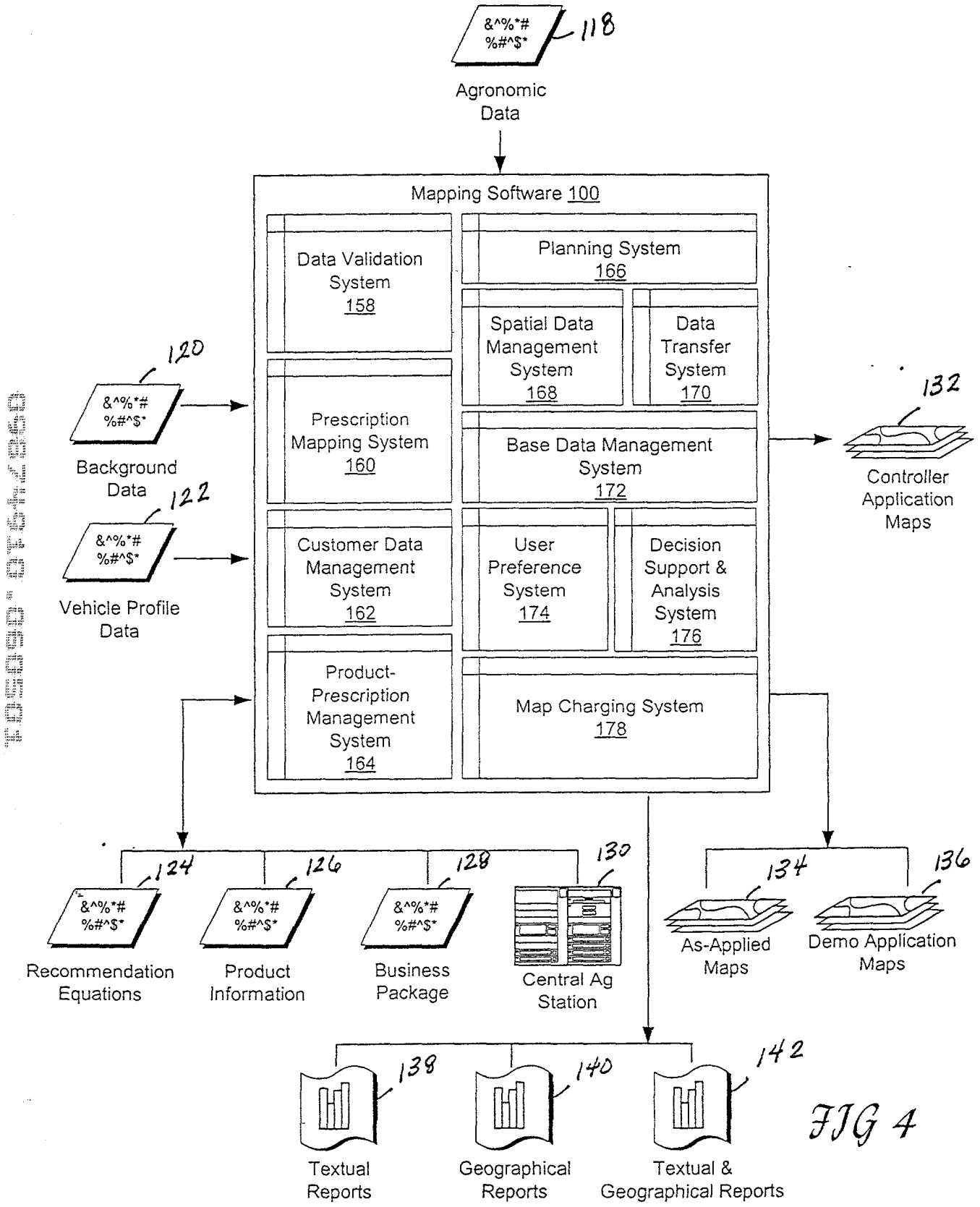

&^%*#
%#^$*
118
Agronomic Data
Mapping Software 100
Data Validation System 158
Planning System 166
Spatial Data Management System 168
Data Transfer System 170
Prescription Mapping System 160
Base Data Management System 172
Customer Data Management System 162
User Preference System 174
Decision Support & Analysis System 176
Product-Prescription Management System 164
Map Charging System 178
120
Background Data
122
Vehicle Profile Data
132
Controller Application Maps
124
Recommendation Equations
126
Product Information
128
Business Package
130
Central Ag Station
134
As-Applied Maps
136
Demo Application Maps
138
Textual Reports
140
Geographical Reports
142
Textual & Geographical Reports

FIG 4

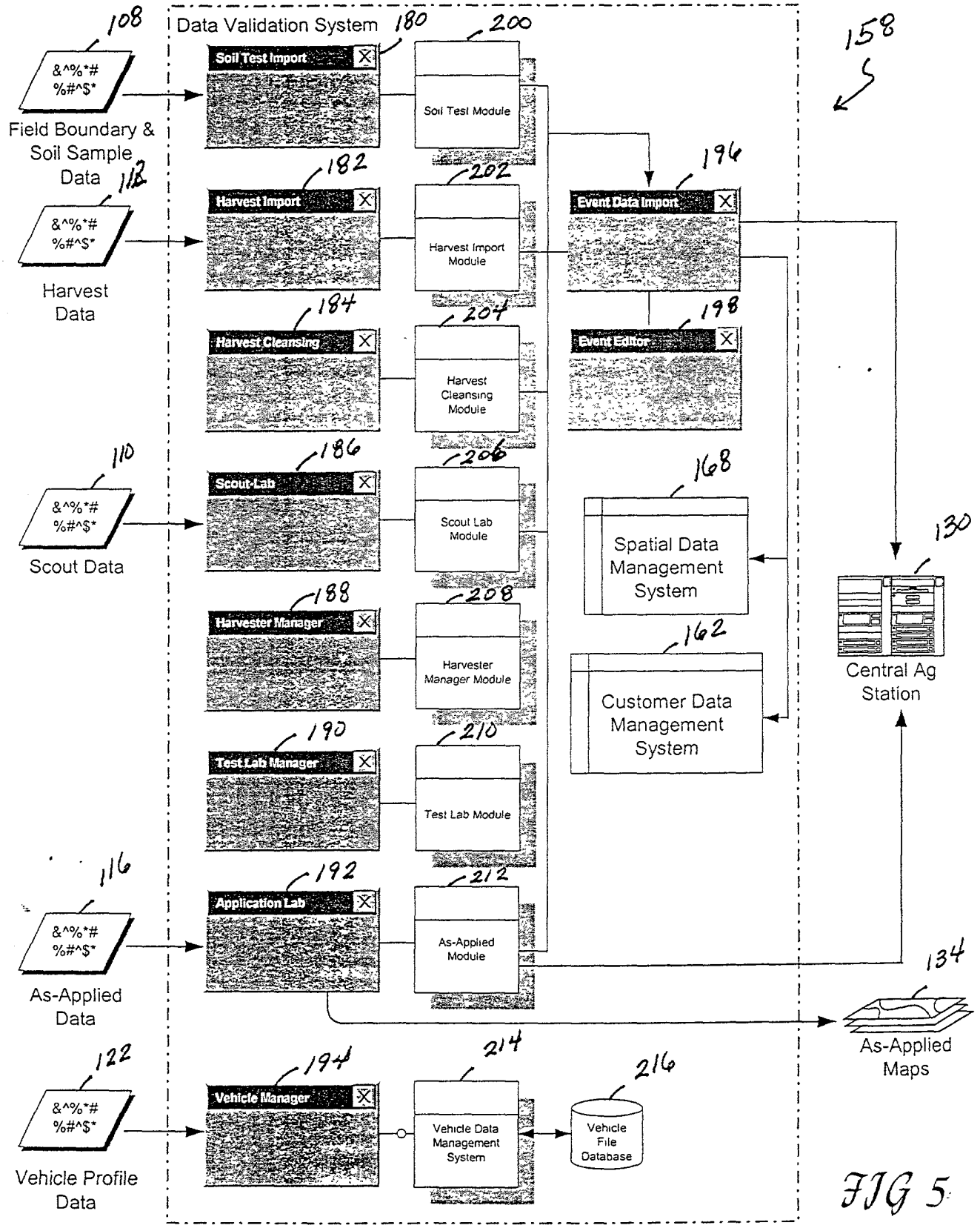

Data Validation System
158
108
&^%*#
%#^$*
Field Boundary &
Soil Sample
Data
112
&^%*#
%#^$*
Harvest
Data
110
&^%*#
%#^$*
Scout Data
116
&^%*#
%#^$*
As-Applied
Data
122
&^%*#
%#^$*
Vehicle Profile
Data
Soil Test Import
180
200
Soil Test Module
Harvest Import
182
202
Harvest Import
Module
Harvest Cleansing
184
204
Harvest
Cleansing
Module
Scout-Lab
186
206
Scout Lab
Module
Harvester Manager
188
208
Harvester
Manager Module
Test Lab Manager
190
210
Test Lab Module
Application Lab
192
212
As-Applied
Module
Vehicle Manager
194
214
Vehicle Data
Management
System
216
Vehicle
File
Database
Event Data Import
196
Event Editor
198
168
Spatial Data
Management
System
162
Customer Data
Management
System
130
Central Ag
Station
134
As-Applied
Maps

FIG 5

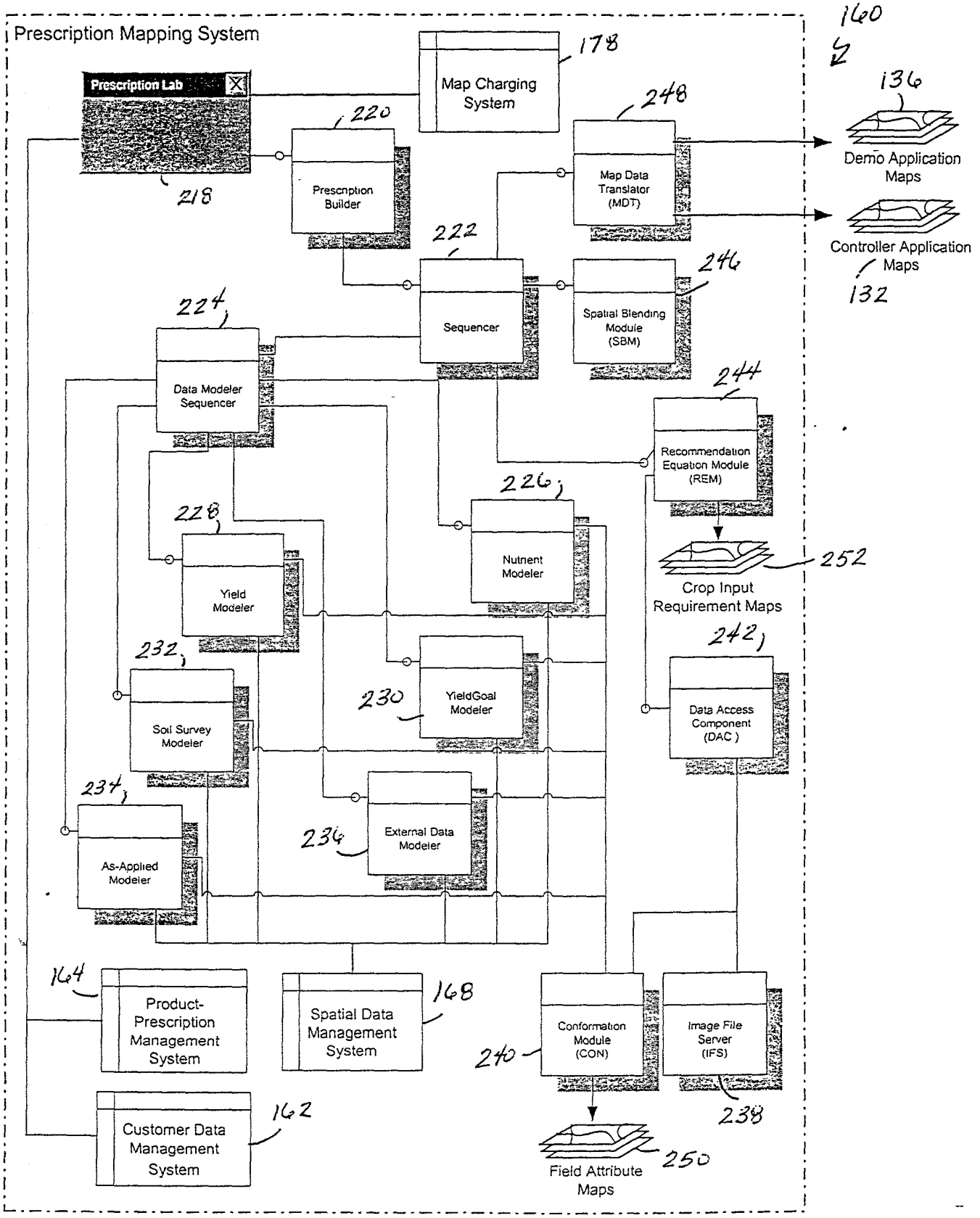

Prescription Mapping System
160
Prescription Lab
218
Map Charging System
178
220
Prescription Builder
248
Map Data Translator (MDT)
136
Demo Application Maps
Controller Application Maps
132
222
Sequencer
246
Spatial Blending Module (SBM)
224
Data Modeler Sequencer
244
Recommendation Equation Module (REM)
226
Nutrient Modeler
228
Yield Modeler
252
Crop Input Requirement Maps
242
Data Access Component (DAC)
232
Soil Survey Modeler
230
YieldGoal Modeler
234
As-Applied Modeler
236
External Data Modeler
164
Product-Prescription Management System
168
Spatial Data Management System
240
Conformation Module (CON)
Image File Server (IFS)
238
162
Customer Data Management System
250
Field Attribute Maps

FIG 6

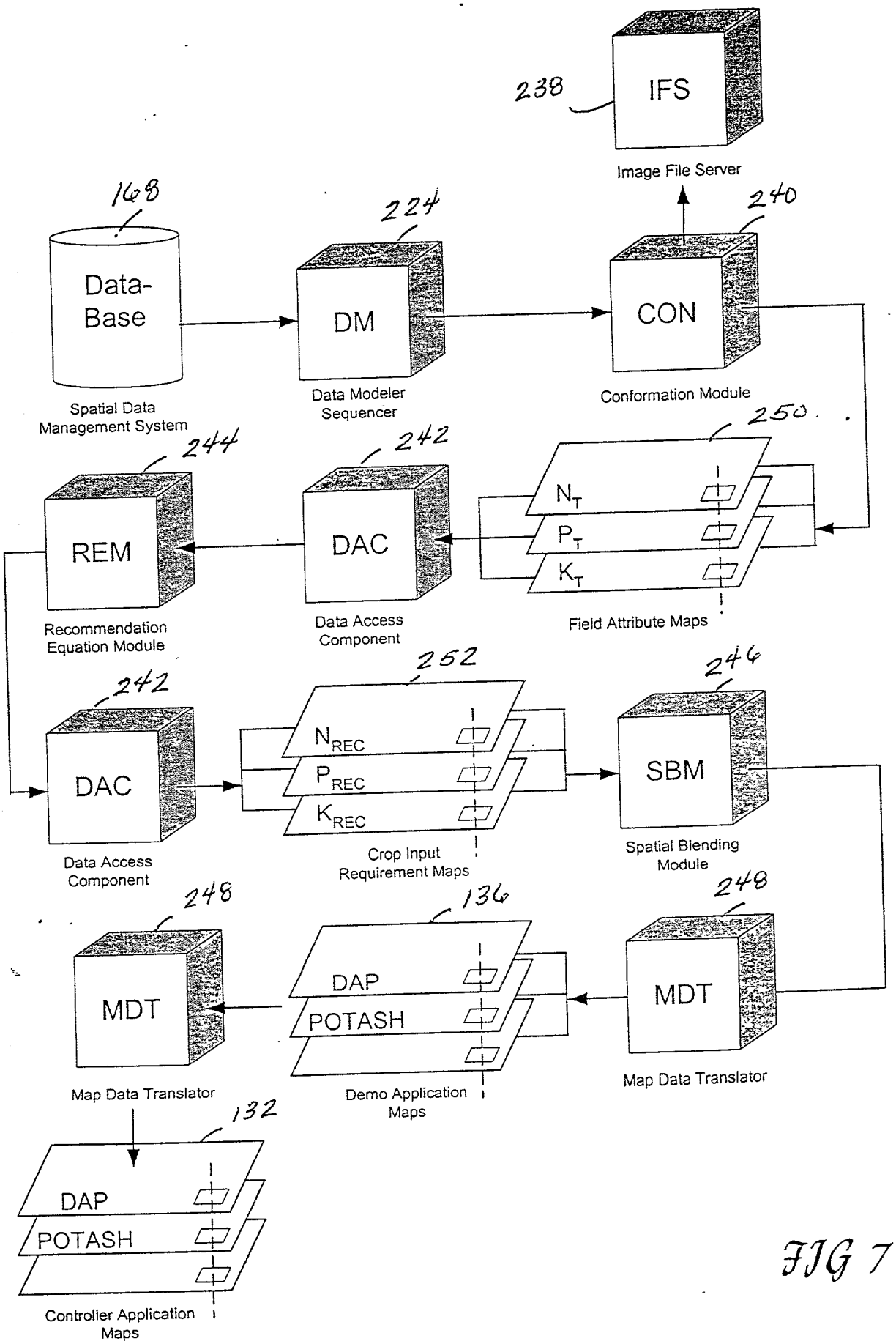

238
IFS
Image File Server
168
Data-
Base
Spatial Data
Management System
224
DM
Data Modeler
Sequencer
240
CON
Conformation Module
250
N_T
P_T
K_T
Field Attribute Maps
244
REM
Recommendation
Equation Module
242
DAC
Data Access
Component
252
N_{REC}
P_{REC}
K_{REC}
Crop Input
Requirement Maps
246
SBM
Spatial Blending
Module
242
DAC
Data Access
Component
248
MDT
Map Data Translator
136
DAP
POTASH
Demo Application
Maps
248
MDT
Map Data Translator
132
DAP
POTASH
Controller Application
Maps

FIG 7

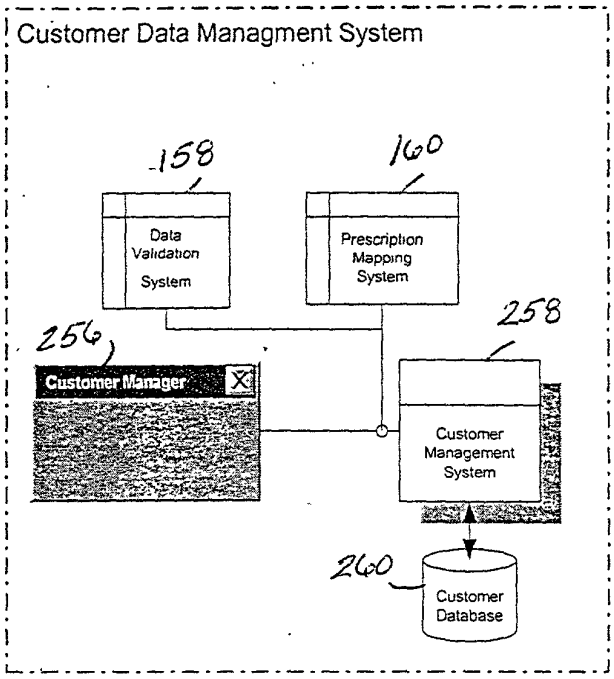

Customer Data Managment System
162
158
160
Data Validation System
Prescription Mapping System
256
258
Customer Manager
Customer Management System
260
Customer Database

FIG 8

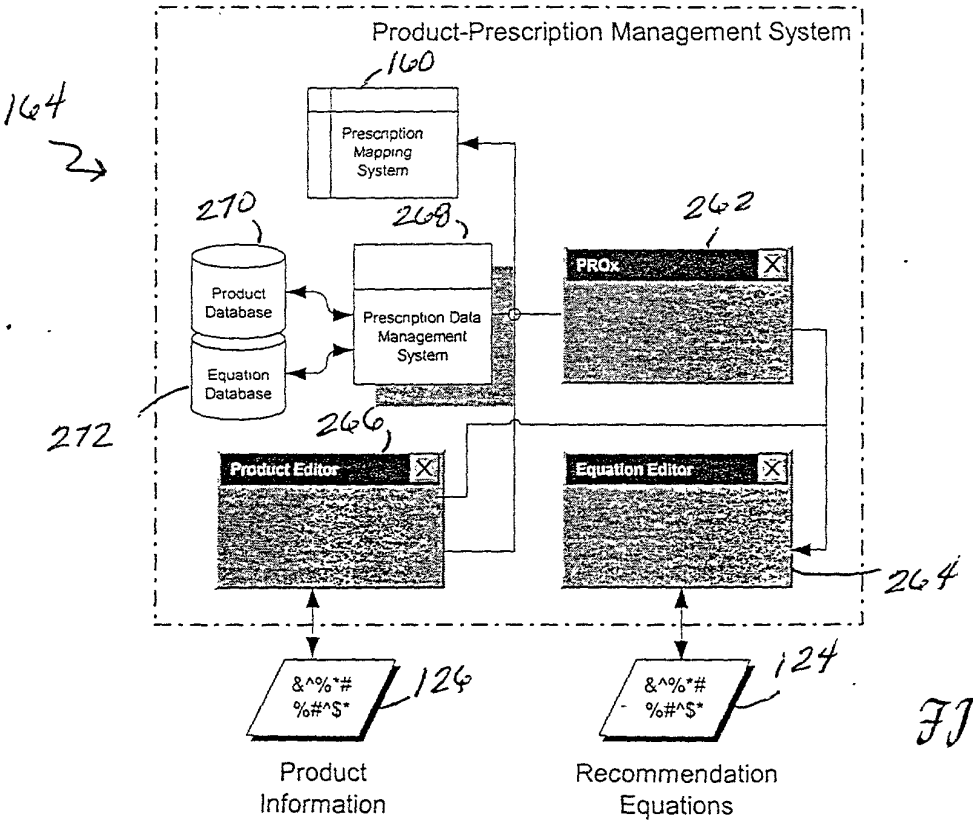

Product-Prescription Management System
164
160
Prescription Mapping System
270
268
262
Product Database
Prescription Data Management System
PROx
Equation Database
272
266
Product Editor
Equation Editor
264
&^%*#
%#^$*
126
124
&^%*#
%#^$*
Product Information
Recommendation Equations

FIG 9

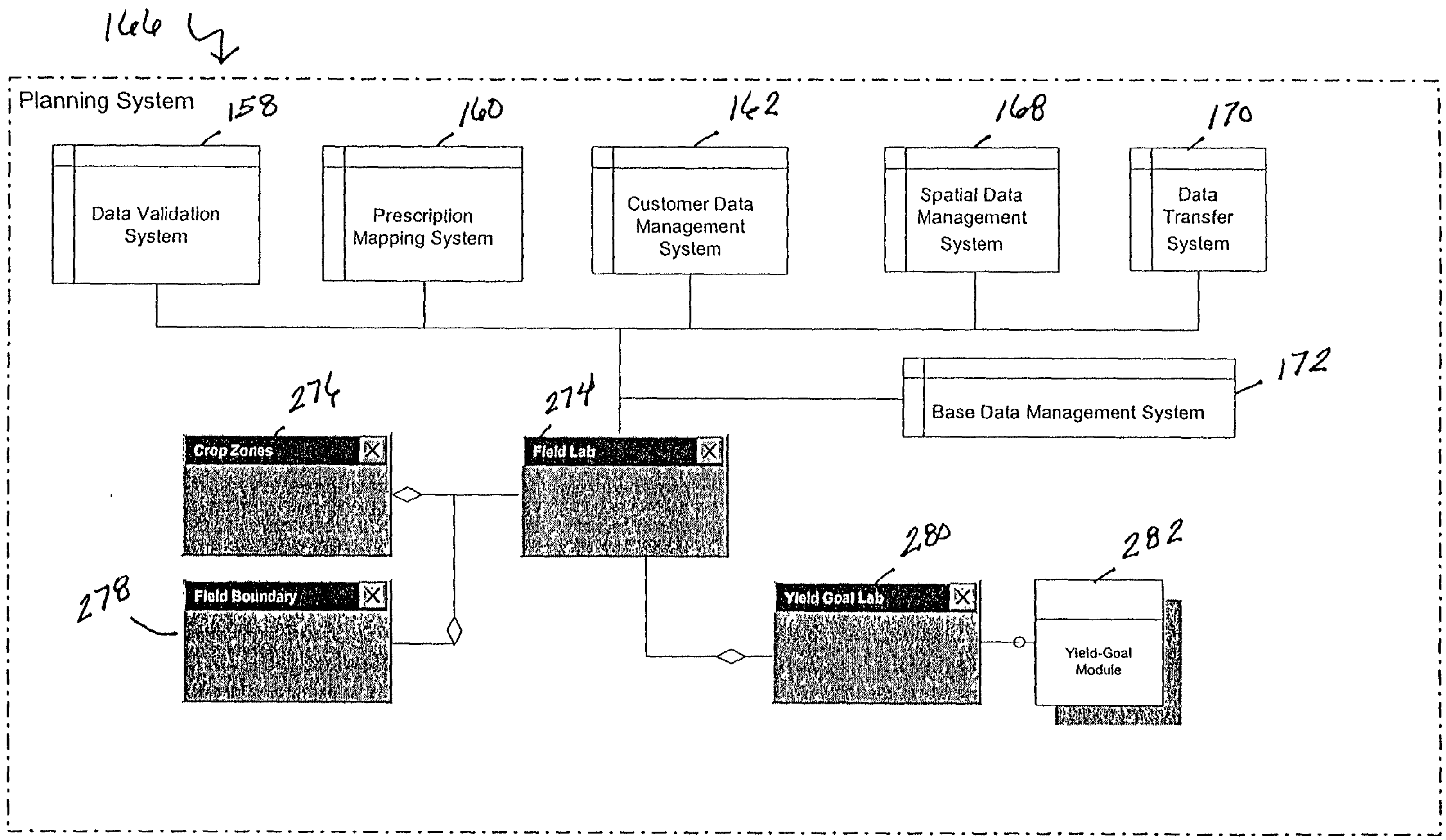


FIG 10

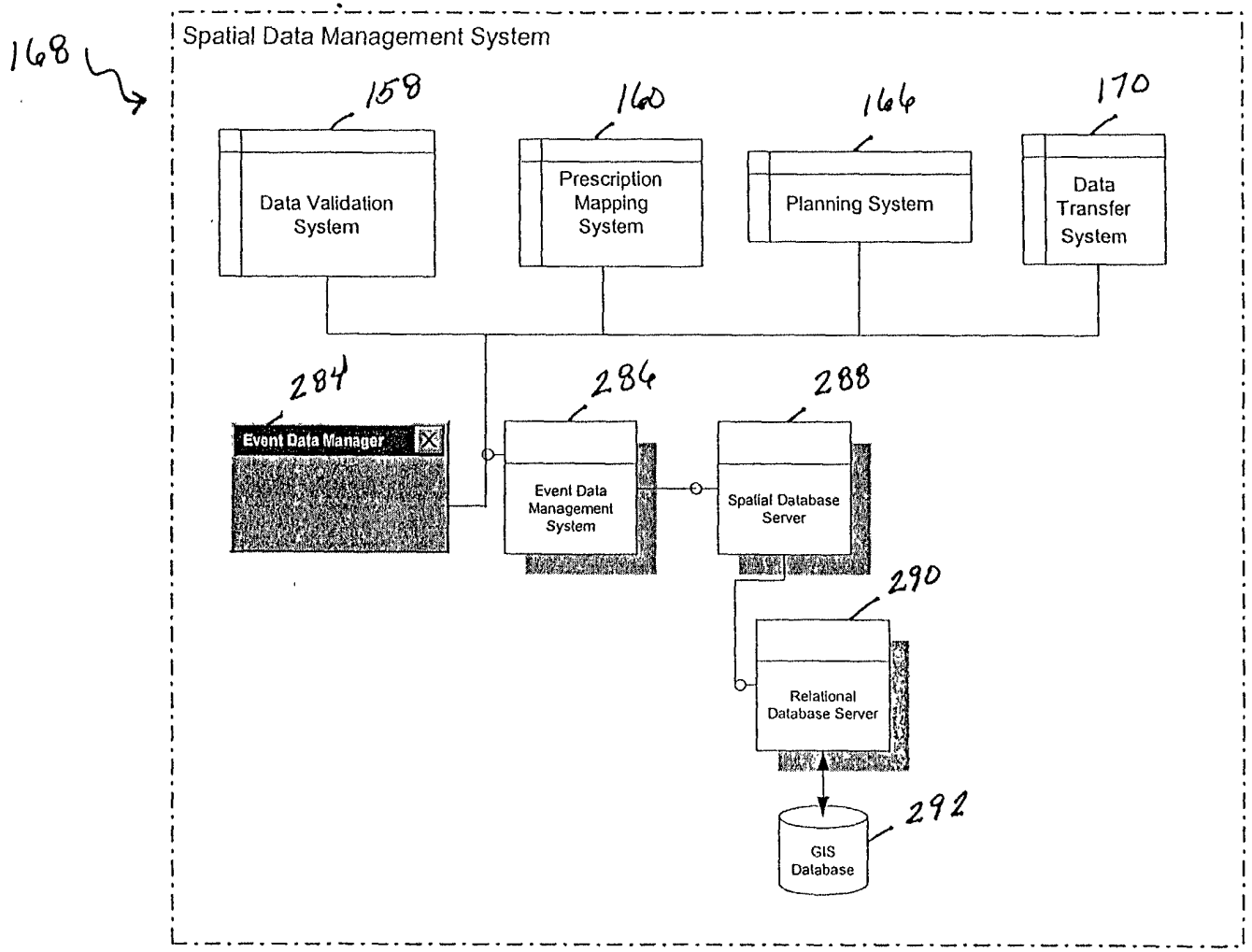

168
Spatial Data Management System
158
Data Validation System
160
Prescription Mapping System
164
Planning System
170
Data Transfer System
284
Event Data Manager
286
Event Data Management System
288
Spatial Database Server
290
Relational Database Server
292
GIS Database

FIG 11

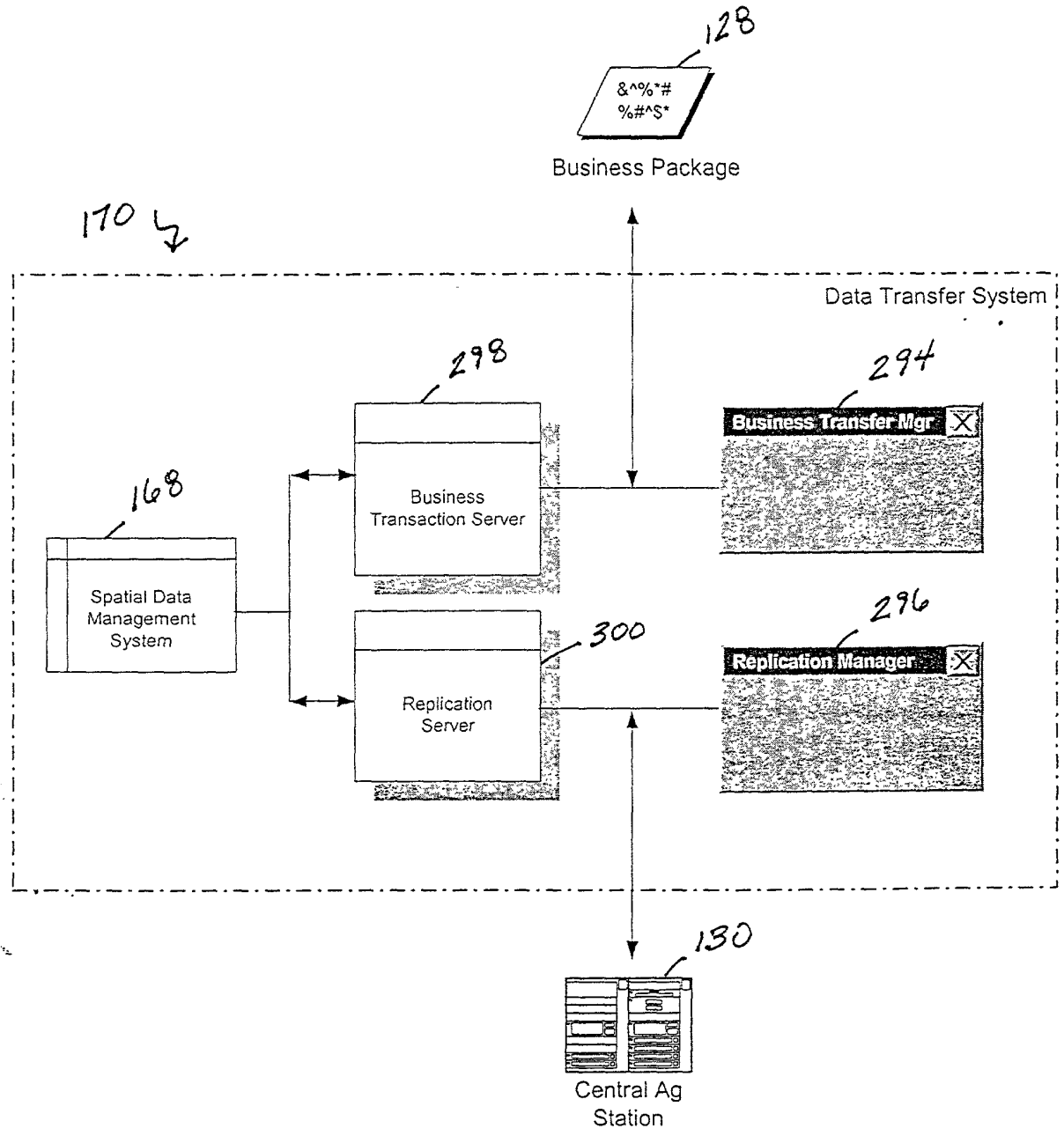

128
&^%*#
%#^$*
Business Package
170
Data Transfer System
298
294
Business Transfer Mgr
168
Business
Transaction Server
Spatial Data
Management
System
296
300
Replication Manager
Replication
Server
130
Central Ag
Station

FIG 12

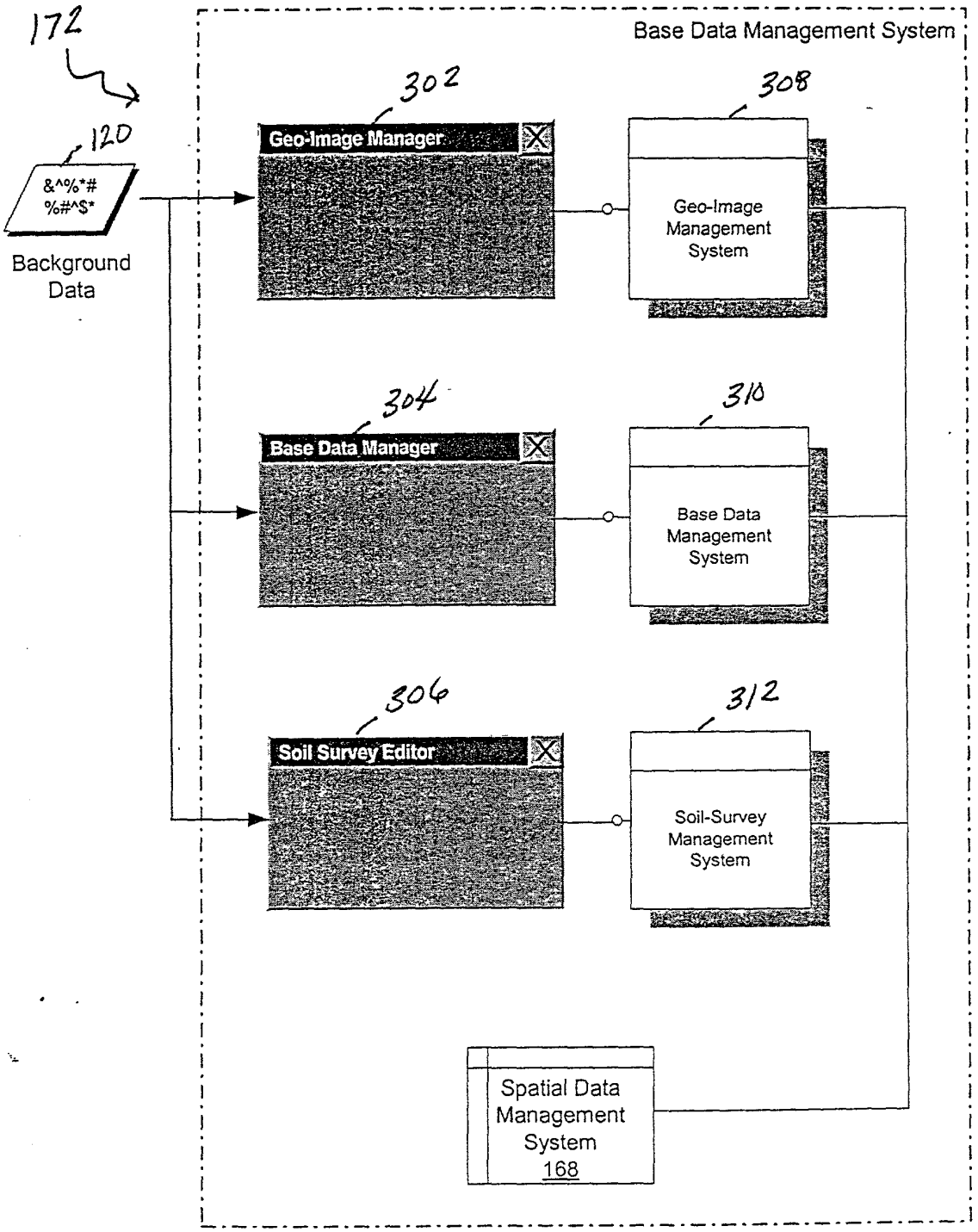

172
120
&^%*#
%#^$*
Background
Data
Base Data Management System
302
Geo-Image Manager
308
Geo-Image
Management
System
304
Base Data Manager
310
Base Data
Management
System
306
Soil Survey Editor
312
Soil-Survey
Management
System
Spatial Data
Management
System
168

FIG 13

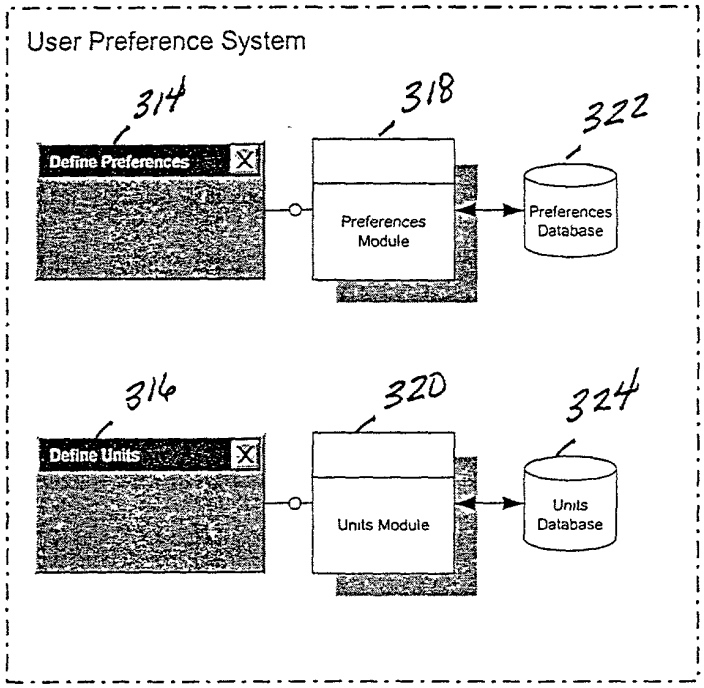

User Preference System
314
Define Preferences
318
Preferences Module
322
Preferences Database
316
Define Units
320
Units Module
324
Units Database

FIG 14

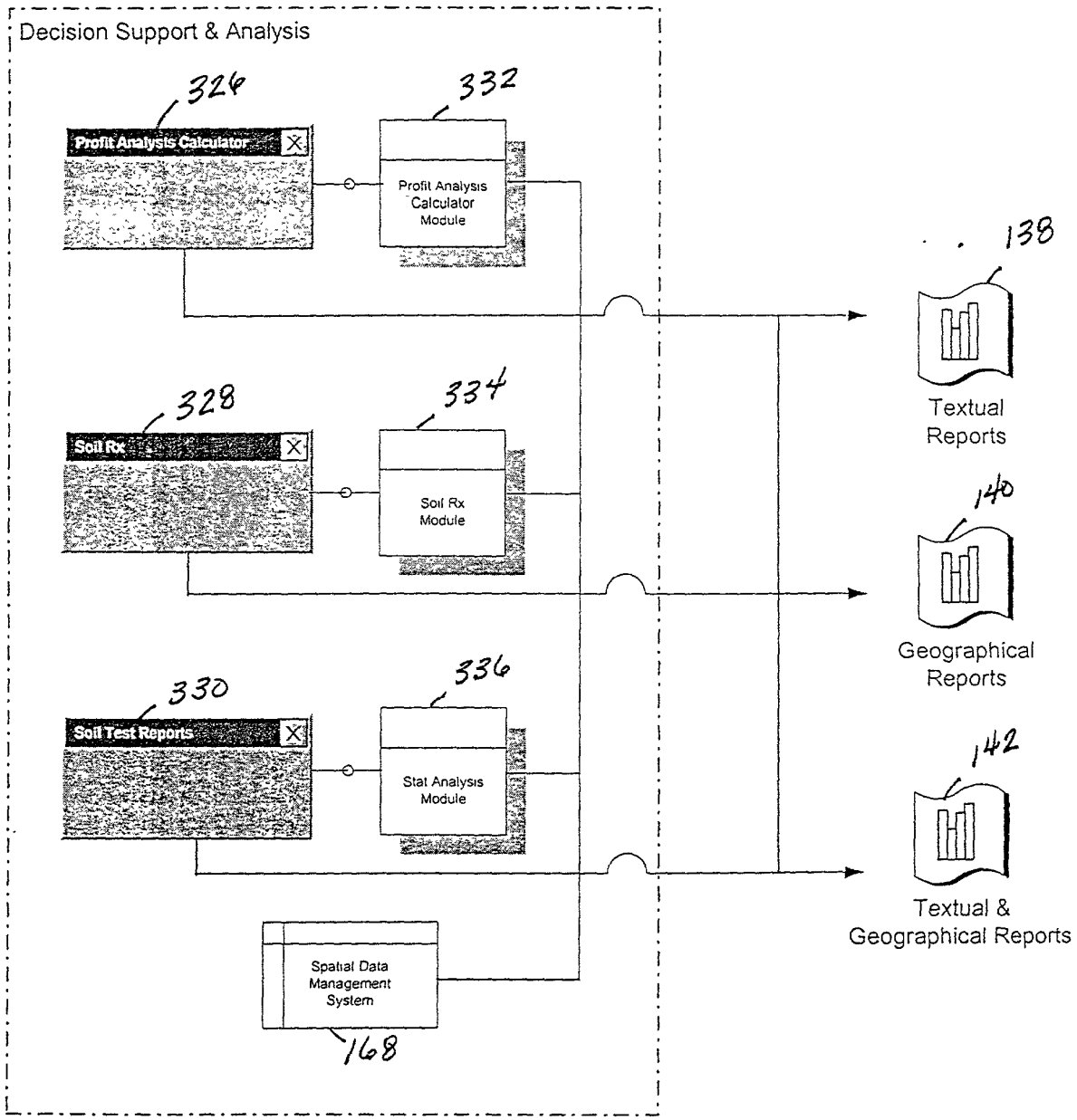

Decision Support & Analysis
326
Profit Analysis Calculator
332
Profit Analysis Calculator Module
328
Soil Rx
334
Soil Rx Module
330
Soil Test Reports
336
Stat Analysis Module
Spatial Data Management System
168
138
Textual Reports
140
Geographical Reports
142
Textual & Geographical Reports

FIG 15

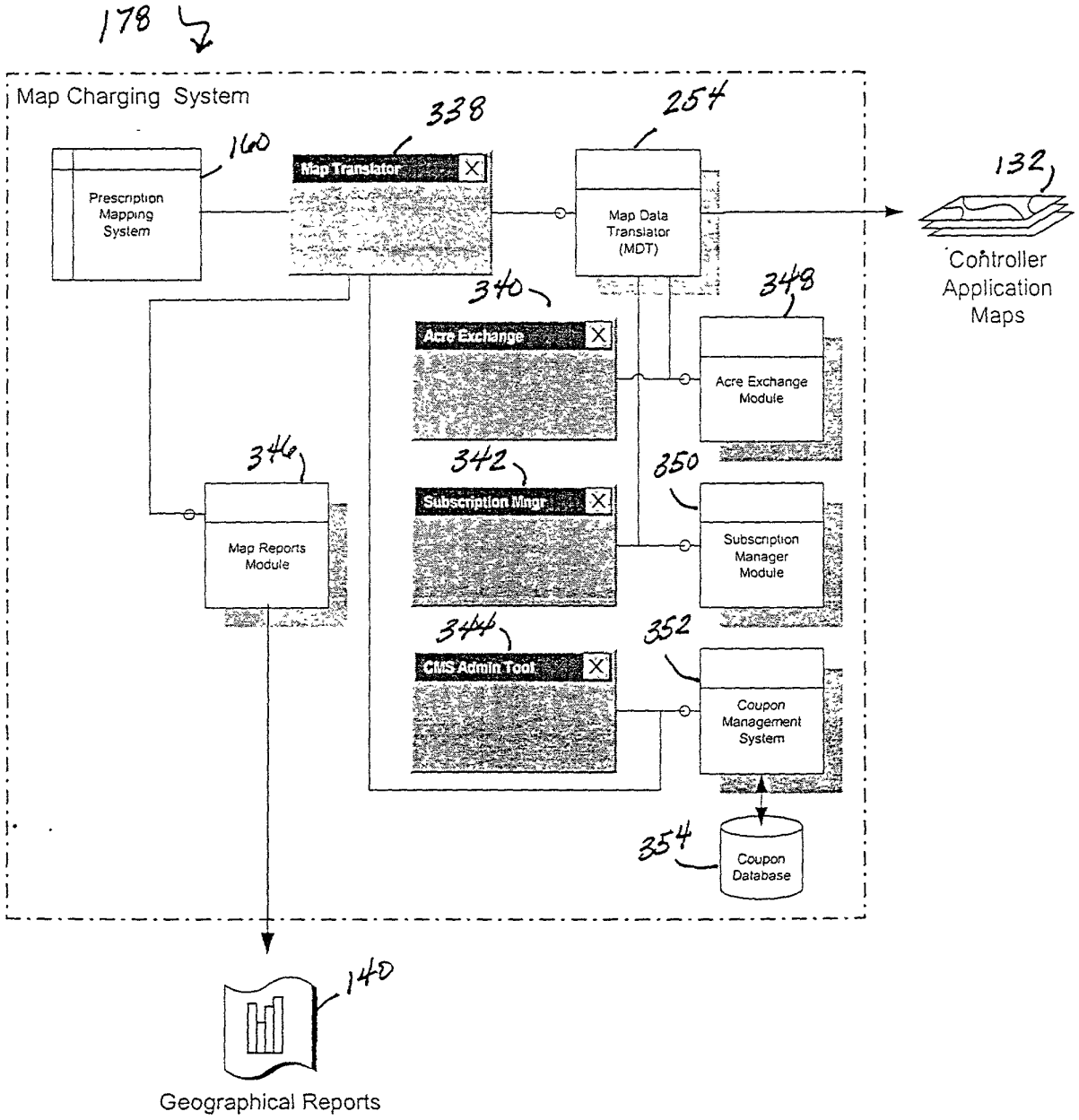

178
Map Charging System
338
254
160
Map Translator
Prescription Mapping System
Map Data Translator (MDT)
132
Controller Application Maps
340
348
Acre Exchange
Acre Exchange Module
346
342
350
Map Reports Module
Subscription Mngr
Subscription Manager Module
344
352
CMS Admin Tool
Coupon Management System
354
Coupon Database
140
Geographical Reports

FIG 16

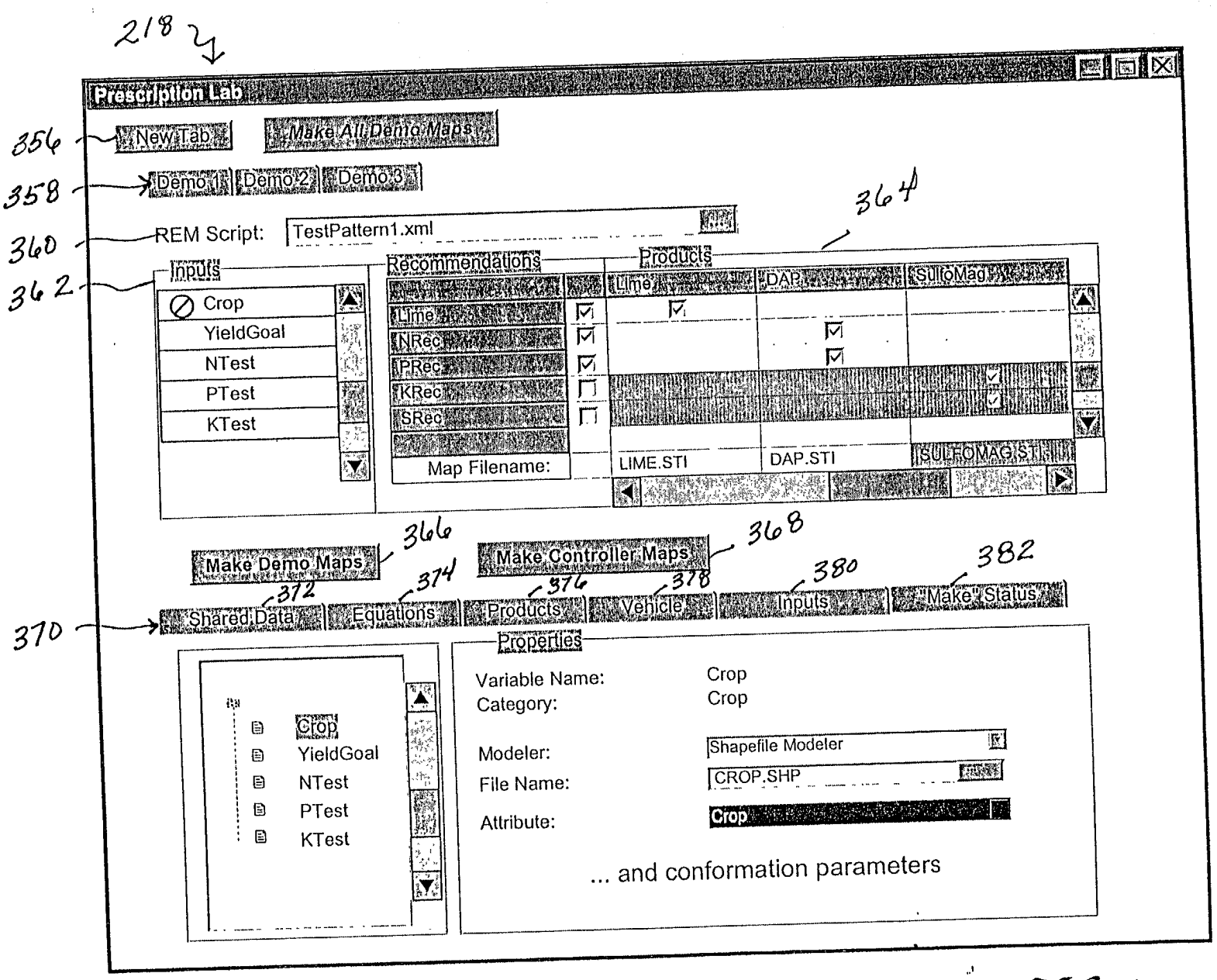

218
Prescription Lab
356
New Tab
Make All Demo Maps
358
Demo 1
Demo 2
Demo 3
360
REM Script:
TestPattern1.xml
362
Inputs
Crop
YieldGoal
NTest
PTest
KTest
Recommendations
Lime
NRec
PRec
KRec
SRec
Map Filename:
364
Products
Lime
DAP
SulfoMag
LIME.STI
DAP.STI
SULFOMAG.ST
366
Make Demo Maps
368
Make Controller Maps
370
372
Shared Data
374
Equations
376
Products
378
Vehicle
380
Inputs
382
Make Status
Crop
YieldGoal
NTest
PTest
KTest
Properties
Variable Name:
Crop
Category:
Crop
Modeler:
Shapefile Modeler
File Name:
CROP.SHP
Attribute:
Crop
... and conformation parameters

FIG 17

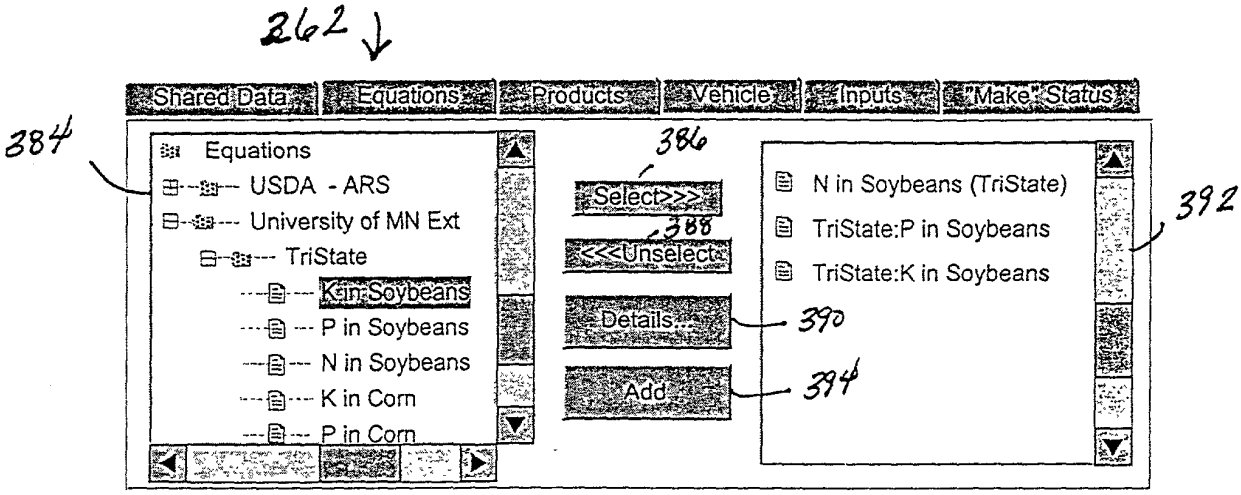

262
Shared Data
Equations
Products
Vehicle
Inputs
Make Status
384
Equations
USDA - ARS
University of MN Ext
TriState
K in Soybeans
P in Soybeans
N in Soybeans
K in Corn
P in Corn
386
Select>>>
388
<<<Unselect
Details...
390
Add
394
N in Soybeans (TriState)
TriState:P in Soybeans
TriState:K in Soybeans
392

FIG 18

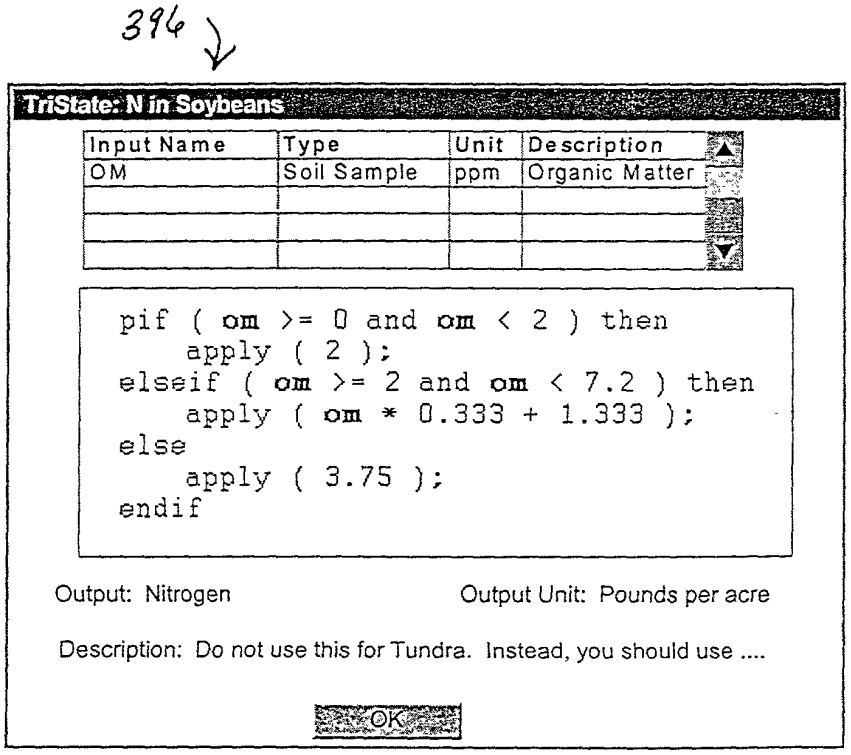

396
TriState: N in Soybeans
Input Name
Type
Unit
Description
OM
Soil Sample
ppm
Organic Matter
pif (om >= 0 and om < 2) then
apply (2);
elseif (om >= 2 and om < 7.2) then
apply (om * 0.333 + 1.333);
else
apply (3.75);
endif
Output: Nitrogen
Output Unit: Pounds per acre
Description: Do not use this for Tundra. Instead, you should use ....
OK

FIG 19

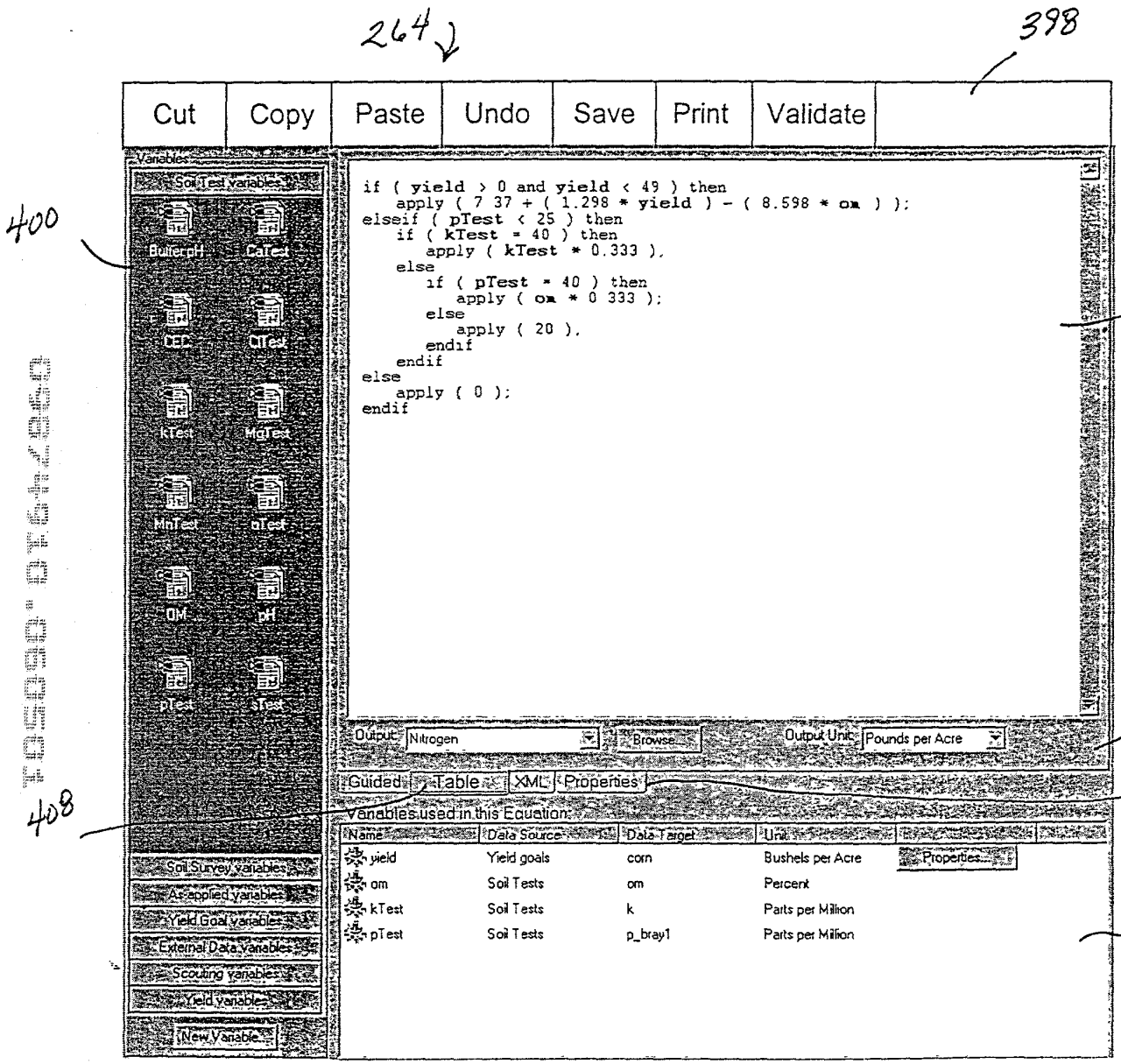

264
398
Cut
Copy
Paste
Undo
Save
Print
Validate
400
402
404
406
408
410
Variables
Soil test variables
BufferpH
CaTest
CEC
ClTest
kTest
MgTest
MnTest
oTest
OM
pH
pTest
sTest
Soil Survey variables
As-applied variables
Yield Goal variables
External Data Variables
Scouting variables
Yield variables
New Variable...
if (yield > 0 and yield < 49) then
apply (7 37 + (1.298 * yield) - (8.598 * om));
elseif (pTest < 25) then
if (kTest = 40) then
apply (kTest * 0.333),
else
if (pTest = 40) then
apply (om * 0 333);
else
apply (20),
endif
endif
else
apply (0);
endif
Output: Nitrogen
Browse...
Output Unit: Pounds per Acre
Guided
Table
XML
Properties
Variables used in this Equation:
Name
Data Source
Data Target
Unit
yield
Yield goals
corn
Bushels per Acre
Properties...
om
Soil Tests
om
Percent
kTest
Soil Tests
k
Parts per Million
pTest
Soil Tests
p_bray1
Parts per Million

FIG 20

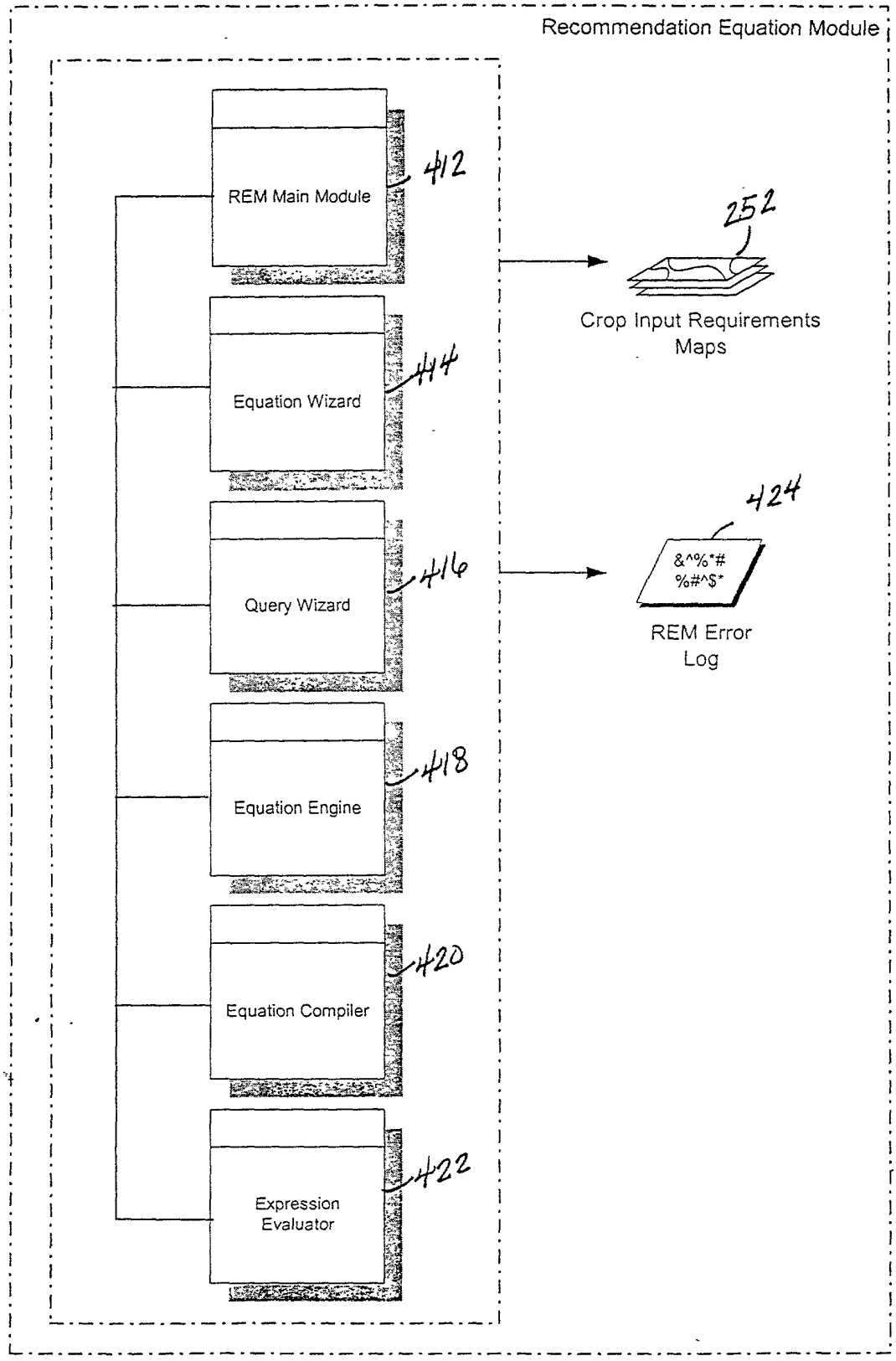

Recommendation Equation Module
244
REM Main Module
412
Equation Wizard
414
Query Wizard
416
Equation Engine
418
Equation Compiler
420
Expression Evaluator
422
252
Crop Input Requirements Maps
424
&^%*#
%#^$*
REM Error Log

FIG 21

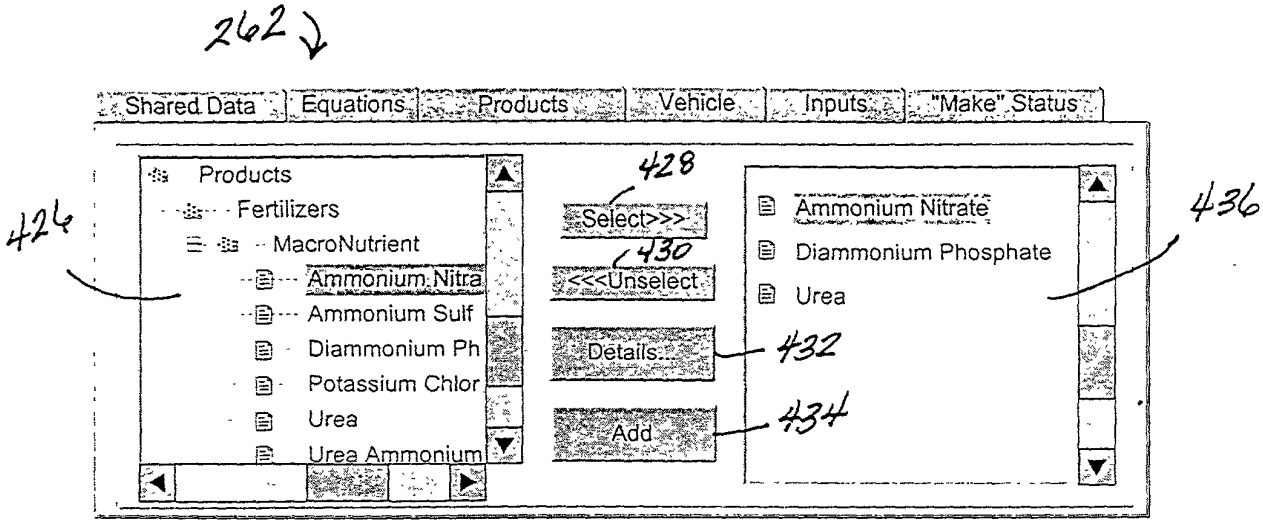

262
Shared Data
Equations
Products
Vehicle
Inputs
"Make" Status
Products
Fertilizers
MacroNutrient
Ammonium Nitra
Ammonium Sulf
Diammonium Ph
Potassium Chlor
Urea
Urea Ammonium
424
428
Select>>>
430
<<<Unselect
Details...
432
Add
434
Ammonium Nitrate
Diammonium Phosphate
Urea
436

FIG 22

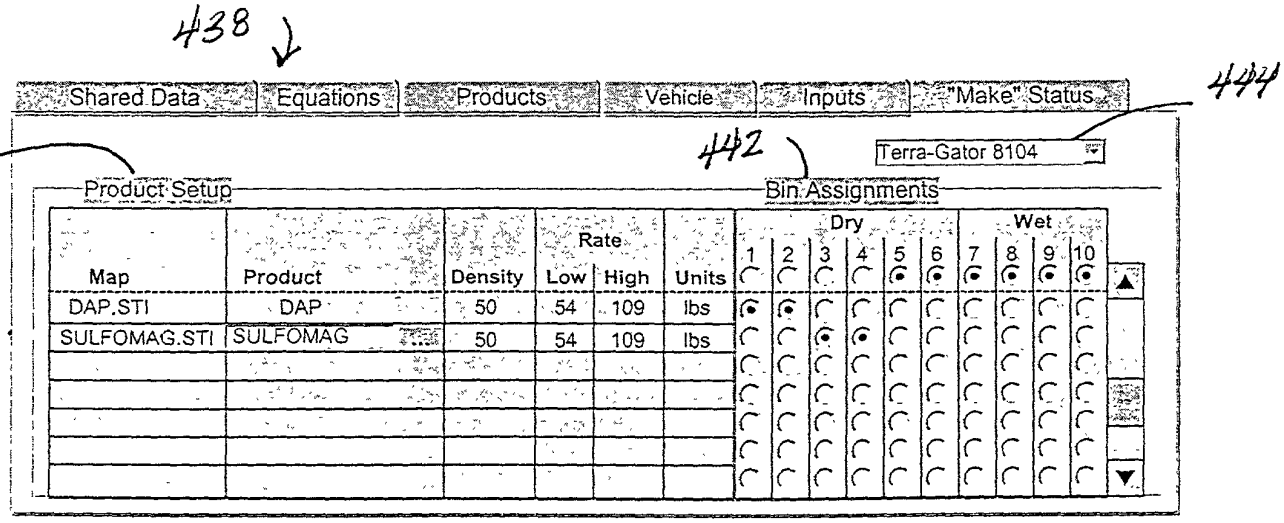

438
Shared Data
Equations
Products
Vehicle
Inputs
"Make" Status
444
440
Product Setup
442
Bin Assignments
Terra-Gator 8104
Map
Product
Density
Rate
Low
High
Units
Dry
Wet
1
2
3
4
5
6
7
8
9
10
DAP.STI
DAP
50
54
109
lbs
SULFOMAG.STI
SULFOMAG
50
54
109
lbs

FIG 23

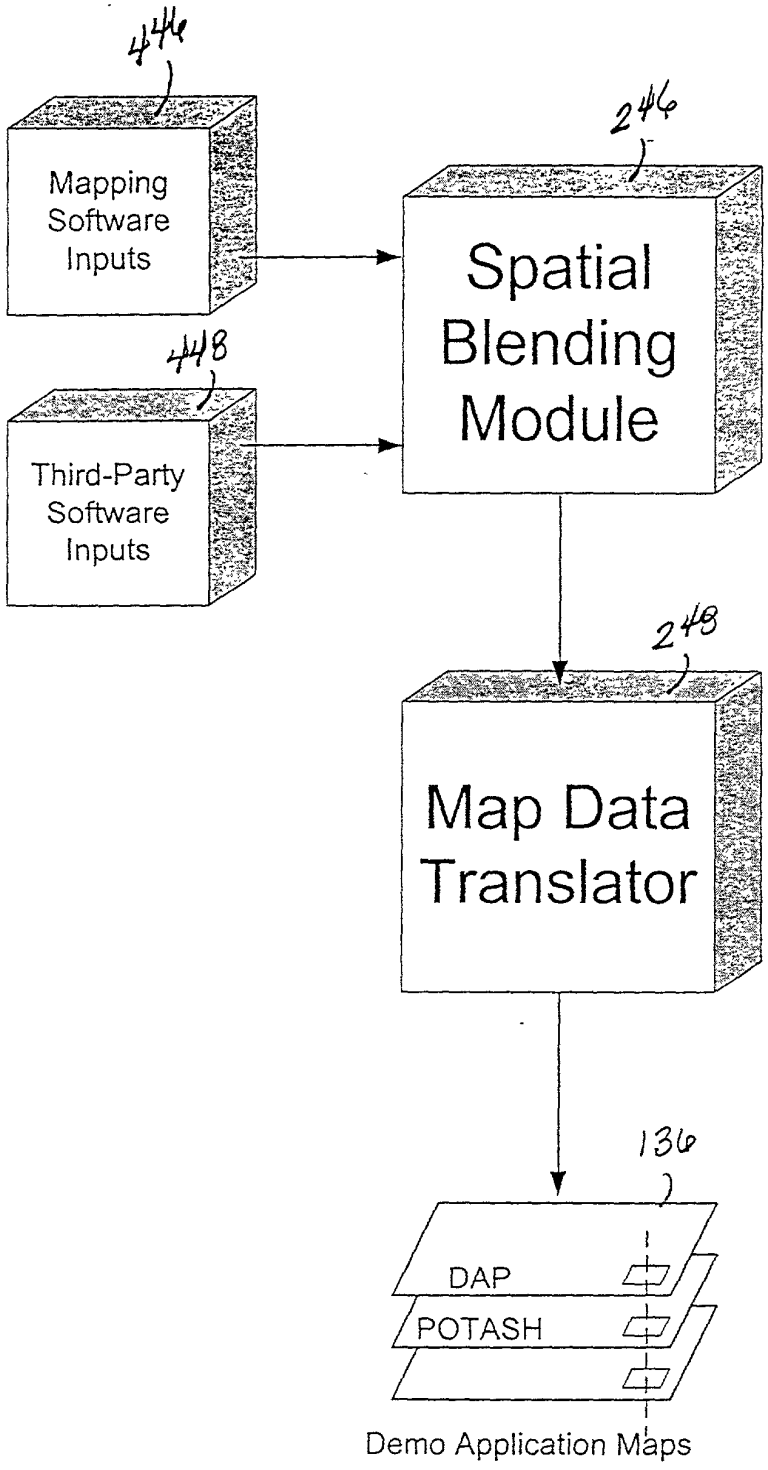

444
Mapping Software Inputs
446
Spatial Blending Module
448
Third-Party Software Inputs
248
Map Data Translator
136
DAP
POTASH
Demo Application Maps

FIG 24

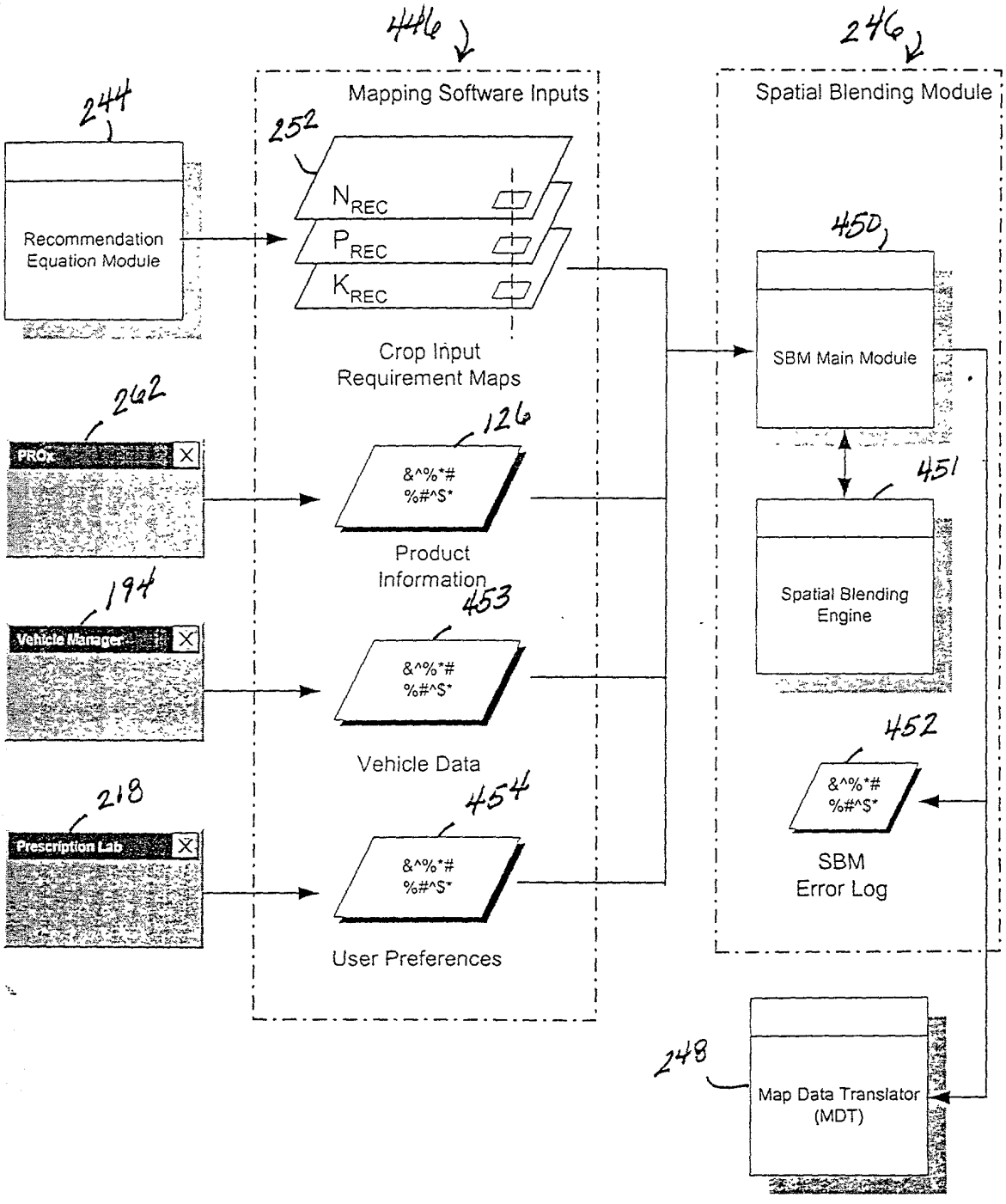

446
246
Mapping Software Inputs
Spatial Blending Module
244
252
Recommendation Equation Module
N_{REC}
P_{REC}
K_{REC}
Crop Input Requirement Maps
450
SBM Main Module
262
126
PROX
&^%*# %#^$*
Product Information
451
Spatial Blending Engine
194
453
Vehicle Manager
&^%*# %#^$*
Vehicle Data
452
&^%*# %#^$*
SBM Error Log
218
454
Prescription Lab
&^%*# %#^$*
User Preferences
248
Map Data Translator (MDT)

FIG 25

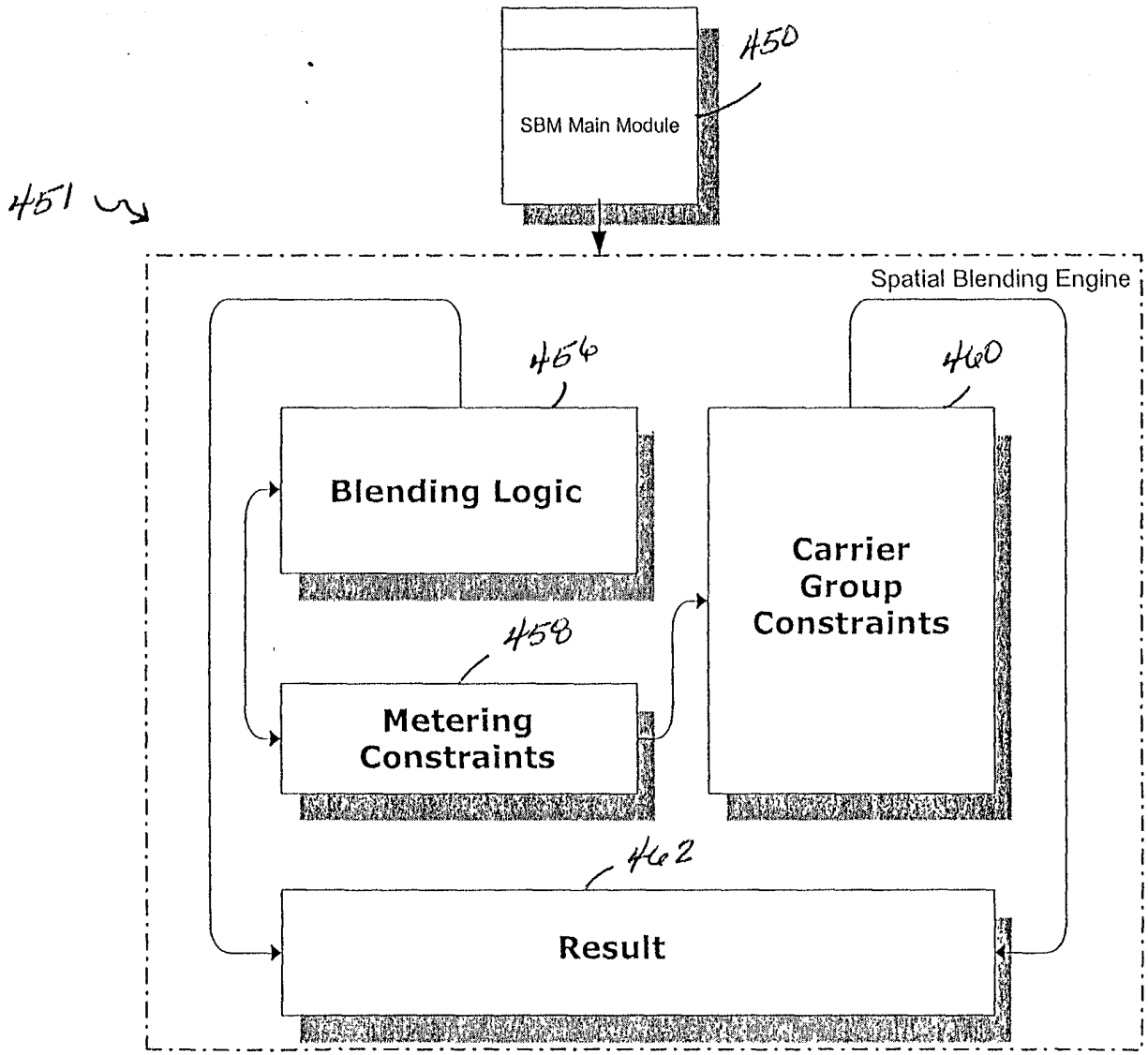

450
SBM Main Module
451
Spatial Blending Engine
454
Blending Logic
460
Carrier Group Constraints
458
Metering Constraints
462
Result

FIG 26

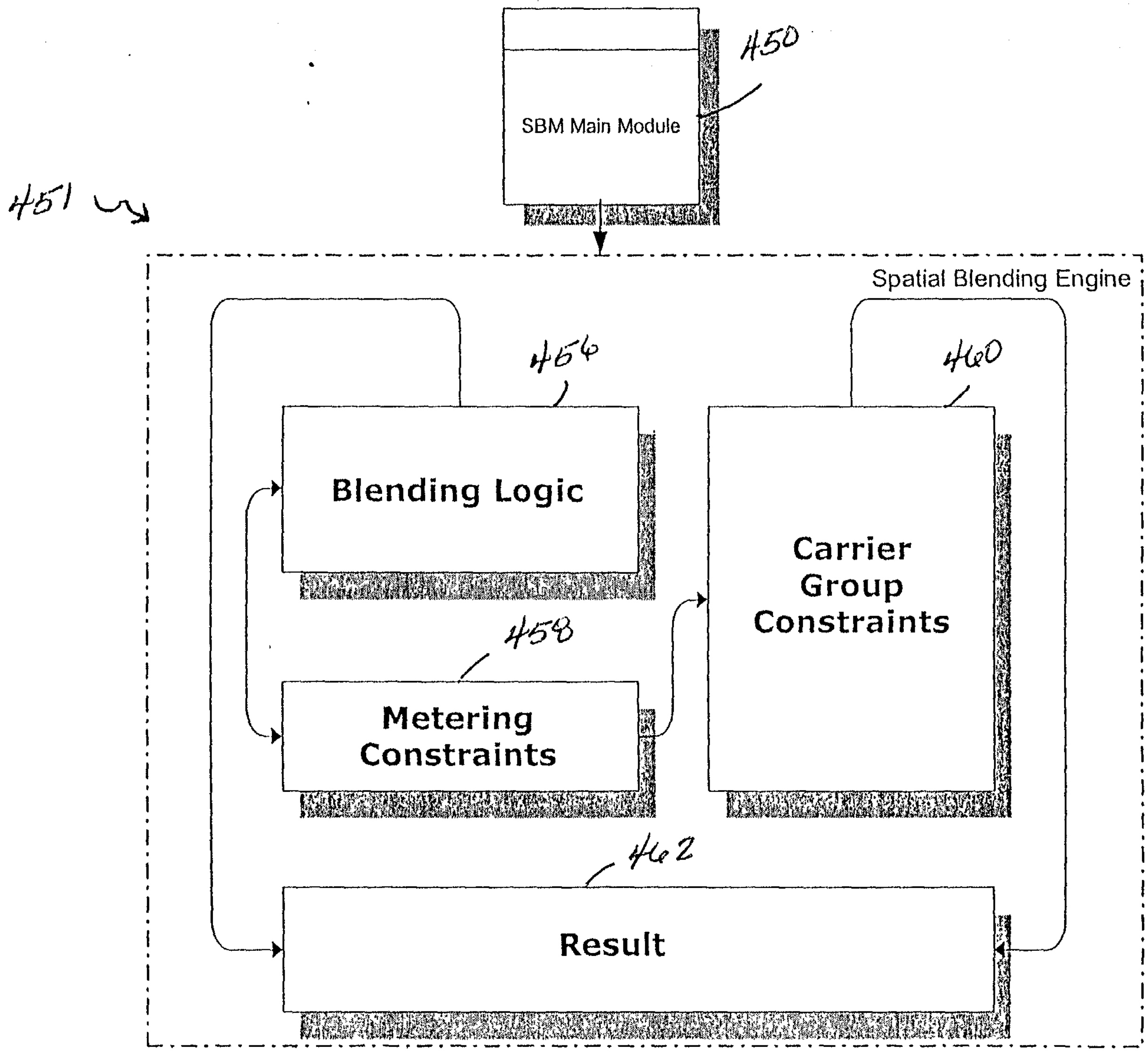

SBM Main Module
450
451
Spatial Blending Engine
Blending Logic
456
Metering Constraints
458
Carrier Group Constraints
460
Result
462

FIG 26

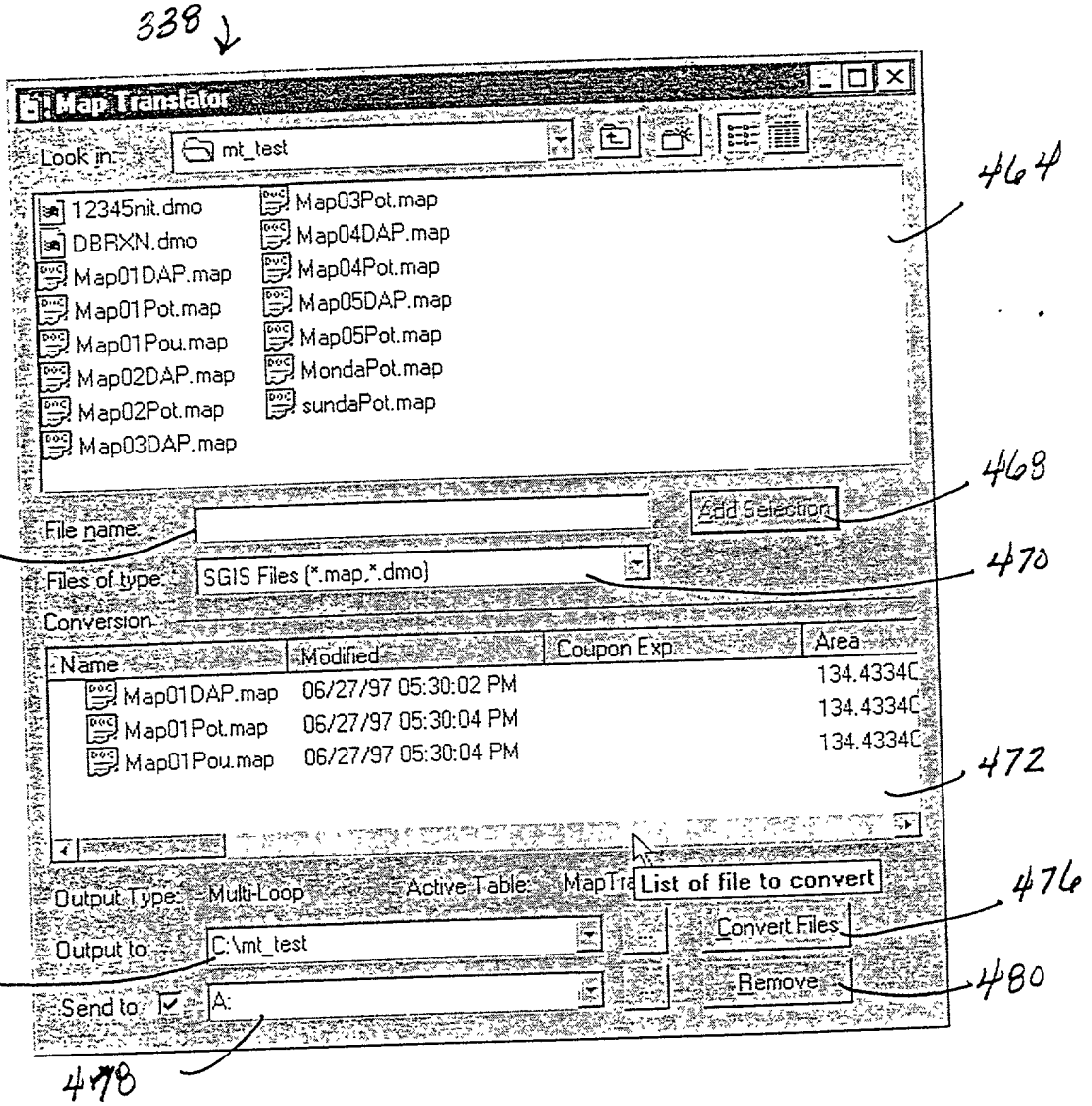
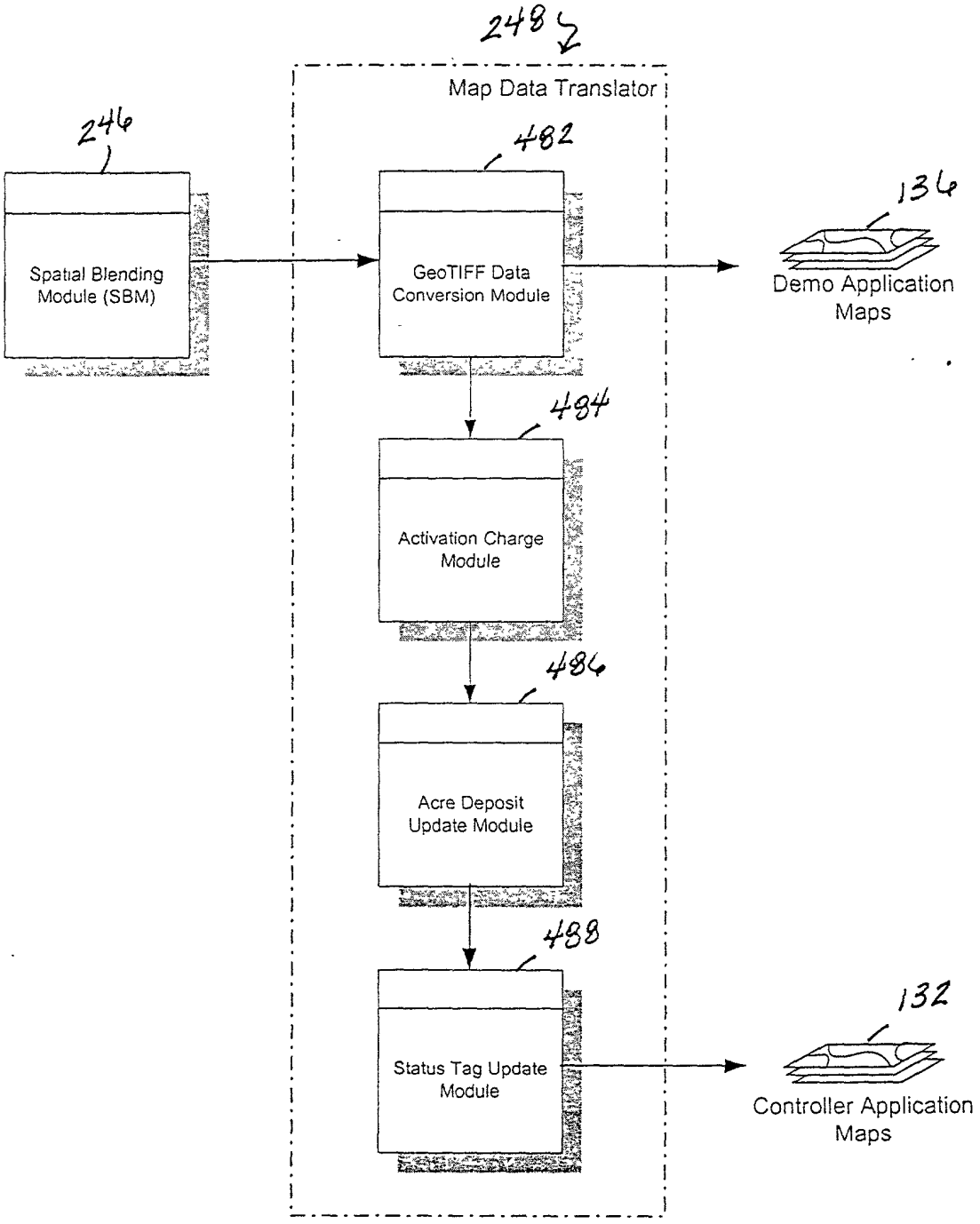

338
Map Translator
Look in:
mt_test
12345nit.dmo
DBRXN.dmo
Map01DAP.map
Map01Pot.map
Map01Pou.map
Map02DAP.map
Map02Pot.map
Map03DAP.map
Map03Pot.map
Map04DAP.map
Map04Pot.map
Map05DAP.map
Map05Pot.map
MondaPot.map
sundaPot.map
464
File name:
Add Selection
468
466
Files of type:
SGIS Files (*.map,*.dmo)
470
Conversion
Name
Modified
Coupon Exp
Area
Map01DAP.map 06/27/97 05:30:02 PM 134.4334C
Map01Pot.map 06/27/97 05:30:04 PM 134.4334C
Map01Pou.map 06/27/97 05:30:04 PM 134.4334C
472
Output Type:
Multi-Loop
Active Table:
MapTra
List of file to convert
476
Output to:
C:\mt_test
Convert Files
474
Send to:
A:
Remove
480
478

FIG 27


248
Map Data Translator
246
Spatial Blending Module (SBM)
482
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